

REMARKS

In response to the above-identified Final Office Action, Applicants traverse Examiner's rejection to the claims and seeks reconsideration thereof. In the instant response, claims 16-25 have been cancelled. No claims are amended or added. Thus, claims 1-15 are now pending in the present application.

The instant application is directed to generating and consuming a three-dimensional audio scene with a sound source whose spatiality is extended. The present invention enhances the sense of reality of a three-dimensional audio scene, at least by providing a sound source of more than one dimension.

I. Election/Restriction

Applicants note that Examiner has withdrawn claims 16-25 from consideration as allegedly being directed to a non-elected invention.

II. Objection to the Specification

Examiner objects to the specification under 35 U.S.C. 132(a) for allegedly introducing new matter into the disclosure. Applicants respectfully disagree with this objection.

Applicants point out that contrary to Examiner's statement on page 3 of Action, Applicants were not in fact "deceitful" in explaining that "deleted portions are followed immediately by the new portions which contain the same disclosure but are rewritten for clarity" on page 9 of the response to the office action of August 10, 2006 (hereinafter "Response"). That sentence follows the statement that "Applicants have . . . amended the specification to more clearly reflect relevant portions of the newly added claims, the support for which may be found in the original specification." Thus, Applicants in fact intended to direct Examiner to the newly added specification language on pages 7-8 of the marked copy. It is on pages 7-8 that the deleted portions were "followed immediately by the new portions" which Applicants intended to contain the same disclosure and be rewritten for clarity. Examiner seems to have misunderstood these two sentences to refer instead to language on page 2 of the marked copy of the specification.

Further, Applicants respectfully submit that the amendments to the specification do not introduce new matter. The language added on pages 2-6 constitutes Background Art, and was added as supplementary known prior art information to aid in understanding the subject matter of the present invention. The amendments on pages 2-6 thus do not introduce new matter.

Regarding the amendments on pages 6-8 in the Disclosure of Invention section, Applicants submit that such amendments do not constitute new matter. Examiner states that the original specification "fails to disclose a method for processing a three-dimensional audio scene including the step of coding a sound object and 3D audio scene description information." (Action, p. 3 (emphasis added).) Examiner further states that the original specification "fails to disclose a method for processing a three-dimensional audio scene including the step of decoding the sound object and the 3D audio scene description information." (Action, p. 3 (emphasis added).)

However, the specification originally disclosed a "method for generating a three-dimensional audio scene" (Marked Specification, p. 7, lines 10-11) and a "method for consuming a three-dimensional audio scene" (Marked Specification, p. 7, lines 30-31). Since "generating" and "consuming" are types of "processing," it follows that a "method for processing a three-dimensional scene" does not constitute new matter.

Further, the specification originally disclosed "generating a sound object . . . and three-dimensional audio scene description information" (Marked Specification, p. 7, lines 13-14), as well as "receiving a sound object and three-dimensional audio scene description information" (Marked Specification, p. 7, lines 33-35). As can be seen in the original Background Art section, it is well-known that content providing (or generating) servers encode and transmit contents, and that content consuming terminals receive and decode contents. (Marked Specification, p. 1, lines 17-31.) Applicants submit that it is therefore that "coding" a sound object and 3D audio scene description information is inherently included in generating the same, as originally disclosed, and that "decoding" a sound object and 3D audio scene description information would inherently follow receiving the same, as originally disclosed.

Hence, the amendments to the specification do not introduce new matter. Accordingly, reconsideration and withdrawal of the objections to the specification are requested. However,

should Examiner maintain the new matter objection to the specification amendments on pages 2-8 of the marking copy, Applicants will cancel these amendments.

III. Claim Rejections – 35 U.S.C. §102

In the outstanding Action, claims 1-15 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 6,330,486 issued to Padula (hereinafter “Padula”). Applicants respectfully traverse the rejections for at least the following reasons.

To establish anticipation, Examiner must show that the cited reference teaches each of the elements of a claim.

Claim 1 teaches “wherein the sound source characteristics information includes spatiality extension information of the sound source which is information on the size and shape of the sound source expressed in a three-dimensional space” (emphasis added). Applicants do not believe that Padula teaches these elements of claim 1. Examiner cites Padula, at col. 3, lines 46-49 to teach these elements. The paragraph in which the language is cited describes a virtual world data structure and provides examples of object characteristics including “shape, size and location.” Padula, at col. 3, lines 41-47. The reference provides a Sound node as an example of an object, and further states that “the location of an object is typically defined by its coordinates in a right-handed, three-dimensional Cartesian coordinate system.” *Id.* at col. 3, lines 49-52 (emphasis added). However, the reference contains no mention of any size and shape expressed in three dimensions.

Further, Padula does not disclose “sound source characteristics information include[ing] spatiality extension information” as recited in claim 1 (emphasis added). The reference merely discloses a method for “position[ing] audio sources in a three dimensional virtual environment such that the visually perceived and aurally perceived locations of the audio source correspond.” *Id.* at col. 3, lines 24-27 (emphasis added). This is performed by determining the “difference between the virtual camera field of view and the user’s field of view” so as to then provide warped locations of audio sources to a rendering machine, *id.* at col. 3, lines 67 to col. 4, lines 1-6, and not by extending the spatiality of the actual sound source.

Although Examiner states in the Response to Arguments section that “[a]s defined in the [previous] office action, spatiality extension means that the sound source is moveable,” (Action, p. 6), Applicants respectfully submit that it is improper for Examiner to act as an arbitrary lexicographer in interpreting the meaning of the claim terms. Terms of a claim must be considered under their plain meaning unless otherwise defined in the specification. MPEP § 2111.01. Neither a plain meaning interpretation nor the specification provides for “spatiality extension” to mean that the “sound source is moveable.” Instead, the specification describes the extending of spatiality to refer to describing the spatiality of the sound source so as to result in a sound source of more than one dimension. (Application, p. 2, lines 28-30.)

Hence, “spatiality extension information” of a sound source is clearly not disclosed by Padula. Even if the positioning of audio sources as disclosed by the reference, for example, were to effect sound that is perceived as three-dimensional, the reference does not disclose that the source of that sound is spatially extended, or of more than one dimension. A spatially extended sound source would necessarily include a size and shape of more than one dimension, which is also not disclosed in the reference.

Thus, claim 1 is not anticipated by the cited reference. Accordingly, reconsideration and withdrawal of the anticipation rejection of this claim are requested.

Independent claims 5 and 9, as amended, include elements similar to those in claim 1. For at least reasons analogous to those described above as to claim 1, claims 5 and 9 are not anticipated by Padula. Accordingly, reconsideration and withdrawal of the anticipation rejection of these claims are requested.

In regard to claims 2-4, 6-8, and 10-15, these claims depend from independent claims 1, 5, and 9, respectively, and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to the independent claim, these claims are not anticipated by the cited reference. Accordingly, reconsideration and withdrawal of the anticipation rejection of these claims are requested.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending are in condition for allowance and such action is earnestly solicited at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. Questions regarding this matter should be directed to the undersigned at (310) 207-3800.

Respectfully submitted,

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By: _____

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I hereby certify that this correspondence is being transmitted via facsimile to 571-273-8300 addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Amber D. Saunders 4/30/07
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